

Q87625.ST25.txt SEQUENCE LISTING

Takehiro

<1105A	DENSIVE,	Take	hiro											
<120>	Method and de		digesi ation	ting	pro	teins	s hig	ghly	res	istar	nt to	o der	natur	ation
<130>	Q87625	5												
<140> <141>	US 10/ 2005-0		605											
<150> <151>	PCT/JF 2003-1		/013658	3										
<160>	4													
<170>	Patent	tIn v	ersion	3.3										
<210> <211> <212> <213>	1 825 DNA Bacill	lus L	icheni	formi	is									
<220> <221> <222>	CDS (1)((825)												
<400> gcc caa Ala Gli 1	1 a aca g n Thr N	gtt co Val Pi 5	ct tac ro Tyr	ggc Gly	atc Ile	ccg Pro	ctc Leu 10	atc Ile	aag Lys	gct Ala	gac Asp	aaa Lys 15	gtg Val	48
cag gco Gln Ala	a Gln (ggt ta Gly Ty 20	at aaa yr Lys	ggg Gly	gca Ala	aat Asn 25	gtc Val	aaa Lys	gtc Val	ggt Gly	atc Ile 30	att Ile	gat Asp	96
acg gga Thr Gly	a atc o / Ile A 35	gct to Ala So	cg tct er Ser	cat His	aca Thr 40	gac Asp	ttg Leu	aag Lys	gta Val	gtc Val 45	ggc Gly	gga Gly	gca Ala	144
agc ttt Ser Phe 50	t gta t e val s	tct g Ser G	gt gaa ly Glu	agt Ser 55	tat Tyr	aat Asn	acg Thr	gac Asp	ggt Gly 60	aac Asn	gga Gly	cac His	ggc Gly	192
aca cat Thr His 65	t gtt g s Val A	gcc g Ala G	ga aca ly Thr 70	gtg Val	gcg Ala	gcg Ala	ctt Leu	gac Asp 75	aat Asn	aca Thr	aca Thr	ggc Gly	gtt Val 80	240
tta ggo Leu Gly			ro Asn											288
tca ago Ser Sei	r Gly s	agc g Ser G 100	ga aca ly Thr	tac Tyr	agc Ser	gca Ala 105	atc Ile	gtc Val	agc Ser	gga Gly	att Ile 110	gag Glu	tgg Trp	336
gcc aca Ala Thi	a caa a Gln A 115	aac g Asn G	gc ctg ly Leu	gat Asp	gtc Val 120	atc Ile	aac Asn	atg Met	agc Ser	ctc Leu 125	ggc Gly	gga Gly	cca Pro	384
tcc ggd	tca a	act g	cg ctg	aaa	cag	gct		gat Page		gca	tat	gcc	agc	432

Ser Gly Ser Thr Ala Leu Lys Gln Ala Val Asp Lys Ala Tyr Ala Ser 130 135 140 gga att gtc gta gtg gca gcg ggg aac agc gga tct tcc ggc agc Gly Ile Val Val Val Ala Ala Ala Gly Asn Ser Gly Ser Ser Gly Ser 145 150 155 160 480 caa aac aca atc ggc tat ccg gca aaa tat gac tcc gtc atc gcc gtc 528 Gln Asn Thr Ile Gly Tyr Pro Ala Lys Tyr Asp Ser Val Ile Ala Val 165 170 175 ggt gcg gtt gac agc aac aaa aac aga gct tca ttc tcc agc gtc ggc 576 GTy Ala Val Asp Ser Asn Lys Asn Arg Ala Ser Phe Ser Ser Val GTy 180 185 190 tca gag ctt gaa gtc atg gct cct ggc gtc agc gta tac agc aca tat 624 Ser Glu Leu Glu Val Met Ala Pro Gly Val Ser Val Tyr Ser Thr Tyr 195 200 205 cct tct aac acg tac aca tca ttg aac gga act tca atg gct tcg cct 672 Pro Ser Asn Thr Tyr Thr Ser Leu Asn Gly Thr Ser Met Ala Ser Pro 215 cat gta gcg gga gca gca gcc ttg atc ttg tcg aaa tac cct acg ctt 720 His Val Ala Gly Ala Ala Ala Leu Ile Leu Ser Lys Tyr Pro Thr Leu 225 230 235 240 tca gct tcc caa gtt cgc aac cgc ctc tca agc act gcg act aat ttq 768 Ser Ala Ser Gln Val Arg Asn Arg Leu Ser Ser Thr Ala Thr Asn Leu 250 gga gat tcc ttc tac tac ggc aaa ggg ctg atc aat gta gaa gct gcc Gly Asp Ser Phe Tyr Tyr Gly Lys Gly Leu Ile Asn Val Glu Ala Ala 260 265 270 816 gct caa taa 825 Àla Gln <210> 274 <211> <212> PRT <213> Bacillus Licheniformis <400> Ala Gln Thr Val Pro Tyr Gly Ile Pro Leu Ile Lys Ala Asp Lys Val Gln Ala Gln Gly Tyr Lys Gly Ala Asn Val Lys Val Gly Ile Ile Asp 20 25 30 Thr Gly Ile Ala Ser Ser His Thr Asp Leu Lys Val Val Gly Gly Ala
35 40 45 Ser Phe Val Ser Gly Glu Ser Tyr Asn Thr Asp Gly Asn Gly His Gly

Q87625.ST25.txt

Q87625.ST25.txt
Thr His Val Ala Gly Thr Val Ala Ala Leu Asp Asn Thr Thr Gly Val
65 70 75 80

Leu Gly Val Ala Pro Asn Val Ser Leu Tyr Ala Ile Lys Val Leu Asn 85 90 95

Ser Ser Gly Ser Gly Thr Tyr Ser Ala Ile Val Ser Gly Ile Glu Trp $100 \hspace{1cm} 105 \hspace{1cm} 110$

Ala Thr Gln Asn Gly Leu Asp Val Ile Asn Met Ser Leu Gly Gly Pro 115 120 125

Ser Gly Ser Thr Ala Leu Lys Gln Ala Val Asp Lys Ala Tyr Ala Ser 130 135 140

Gly Ile Val Val Val Ala Ala Gly Asn Ser Gly Ser Ser Gly Ser 145 150 155

Gln Asn Thr Ile Gly Tyr Pro Ala Lys Tyr Asp Ser Val Ile Ala Val 165 170 175

Gly Ala Val Asp Ser Asn Lys Asn Arg Ala Ser Phe Ser Ser Val Gly
180 185 190

Ser Glu Leu Glu Val Met Ala Pro Gly Val Ser Val Tyr Ser Thr Tyr 195 200 205

Pro Ser Asn Thr Tyr Thr Ser Leu Asn Gly Thr Ser Met Ala Ser Pro 210 215 220

His Val Ala Gly Ala Ala Ala Leu Ile Leu Ser Lys Tyr Pro Thr Leu 225 230 235 240

Ser Ala Ser Gln Val Arg Asn Arg Leu Ser Ser Thr Ala Thr Asn Leu 245 250 255

Gly Asp Ser Phe Tyr Tyr Gly Lys Gly Leu Ile Asn Val Glu Ala Ala 260 265 270

Ala Gln

<210>

20 <211>

<212> DNA <213> Artificial Sequence

Chemically - synthesized Primer PDE-2 Page 3

Q87625.ST25.txt

<400> agagcg	3 gcgg aaaagtggac	20
<212>	4 20 DNA Artificial Sequence	
<220> <223>	Chemically-synthesized Primer PDE-5	
	4 ccag gagccatgac	20